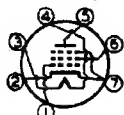




9003

# **SUPER-CONTROL R-F AMPLIFIER PENTODE** MIDGET TYPE

|  |   |                      |
|--|---|----------------------|
| Heater   | Coated Unipotential Cathode                             |                      |
| Voltage  | 6.3   | a-c or d-c volts     |
| Current  | 0.15  | amp.                 |
| Direct Interelectrode Capacitances:                  |   |                      |
| Grid to Plate  | 0.01 max.   | $\mu\mu\text{f}$     |
| Input  | 3.4   | $\mu\mu\text{f}$     |
| Output   | 3.0   | $\mu\mu\text{f}$     |
| Maximum Overall Length                               |   | 1-13/16"             |
| Maximum Seated Height                                |   | 1-9/16"              |
| Length from Base Seat to Bulb Top<br>(excluding tip) |   | 1-3/16" $\pm$ 3/32"* |
| Maximum Diameter                                     |   | 3/4"                 |
| Bulb   |   | T-5-1/2              |
| Base <sup>▲</sup>                                    | Miniature Button 7-Pin                                  |                      |
| Pin 1 - Grid   | Pin 5 - Plate   |                      |
| Pin 2 - Cathode                                      | Pin 6 - Screen  |                      |
| Pin 3 - Heater                                       | Pin 7 - { Cathode,<br>Grid No. 3,<br>Internal<br>Shield |                      |
| Pin 4 - Heater                                       |   |                      |



RCA Socket  
Mounting Position  
Stock No. 9914  
Any

BOTTOM VIEW

Maximum and Minimum Ratings Are Design-Center Values  
**AMPLIFIER**

|                    |          |       |
|--------------------|----------|-------|
| Plate Voltage      | 250 max. | volts |
| Screen Voltage     | 100 max. | volts |
| Grid Voltage       | -3 min.  | volts |
| Plate Dissipation  | 1.7 max. | watts |
| Screen Dissipation | 0.3 max. | watt  |

## **Typical Operation and Characteristics - Class A<sub>1</sub> Amplifier:**

|  |             |                  |
|--|-------------|------------------|
| Plate Voltage                                      | 250         | volts            |
| Screen Voltage                                     | 100         | volts            |
| Grid Voltage                                       | -3          | volts            |
| Plate Resistance                                   | 0.7 approx. | megohm           |
| Transconductance                                   | 1800        | $\mu\text{mhos}$ |
| Grid Bias for<br>Transcond. of 15 $\mu\text{mhos}$ | -35         | volts            |
| Grid Bias for<br>Transcond. of 2 $\mu\text{mhos}$  | -45         | volts            |
| Plate Current                                      | 6.7         | ma.              |
| Screen Current                                     | 2.7         | ma.              |

## **Typical Operation as Mixer in Superheterodyne Circuit:**

|                             |     |             |                  |
|-----------------------------|-----|-------------|------------------|
| Plate Voltage               | 100 | 250         | volts            |
| Screen Voltage              | 100 | 100         | volts            |
| Grid Voltage #              | -10 | -10 approx. | volts            |
| Conversion Transconductance | -   | 600 approx. | $\mu\text{mhos}$ |

\* The grid bias is minimum for an oscillator peak voltage of 9 volts. These values are optimum.

▲ The center hole in sockets designed for this base provides for the possibility that this tube type may be manufactured with the exhaust-tube tip at the base end. For this reason, it is recommended that in equipment employing this tube type, no material be permitted to obstruct the socket hole.

**Shielding Considerations & Heater-Cathode Connections**  
For the 9003 are the same as for Type 9001.

← Indicates a change.

\* Temporary minimum length = 1-1/16".

OCT. 1, 1943

RCA VICTOR DIVISION  
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

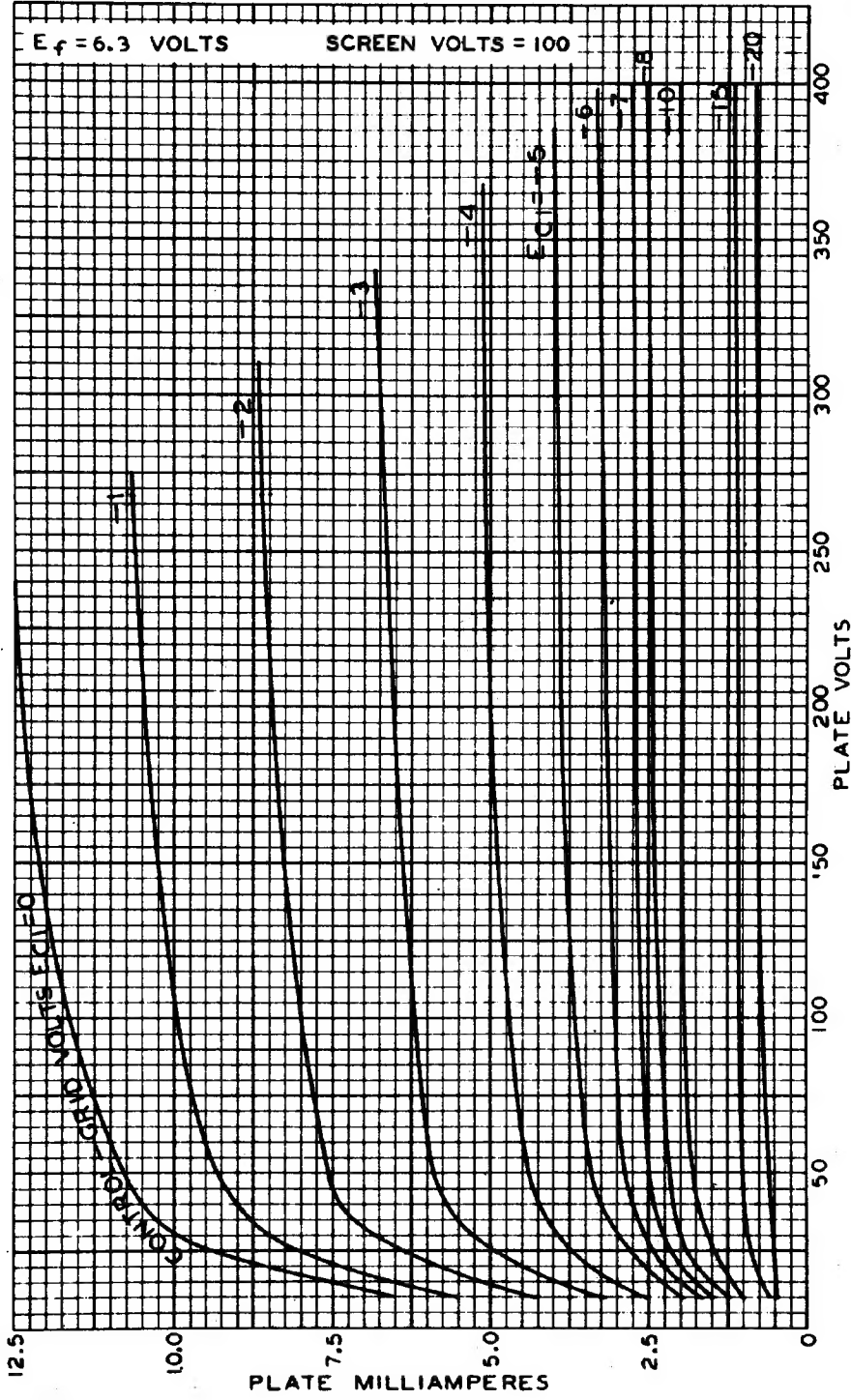
DATA

9003



9003

# AVERAGE PLATE CHARACTERISTICS



SEPT. 17, 1943

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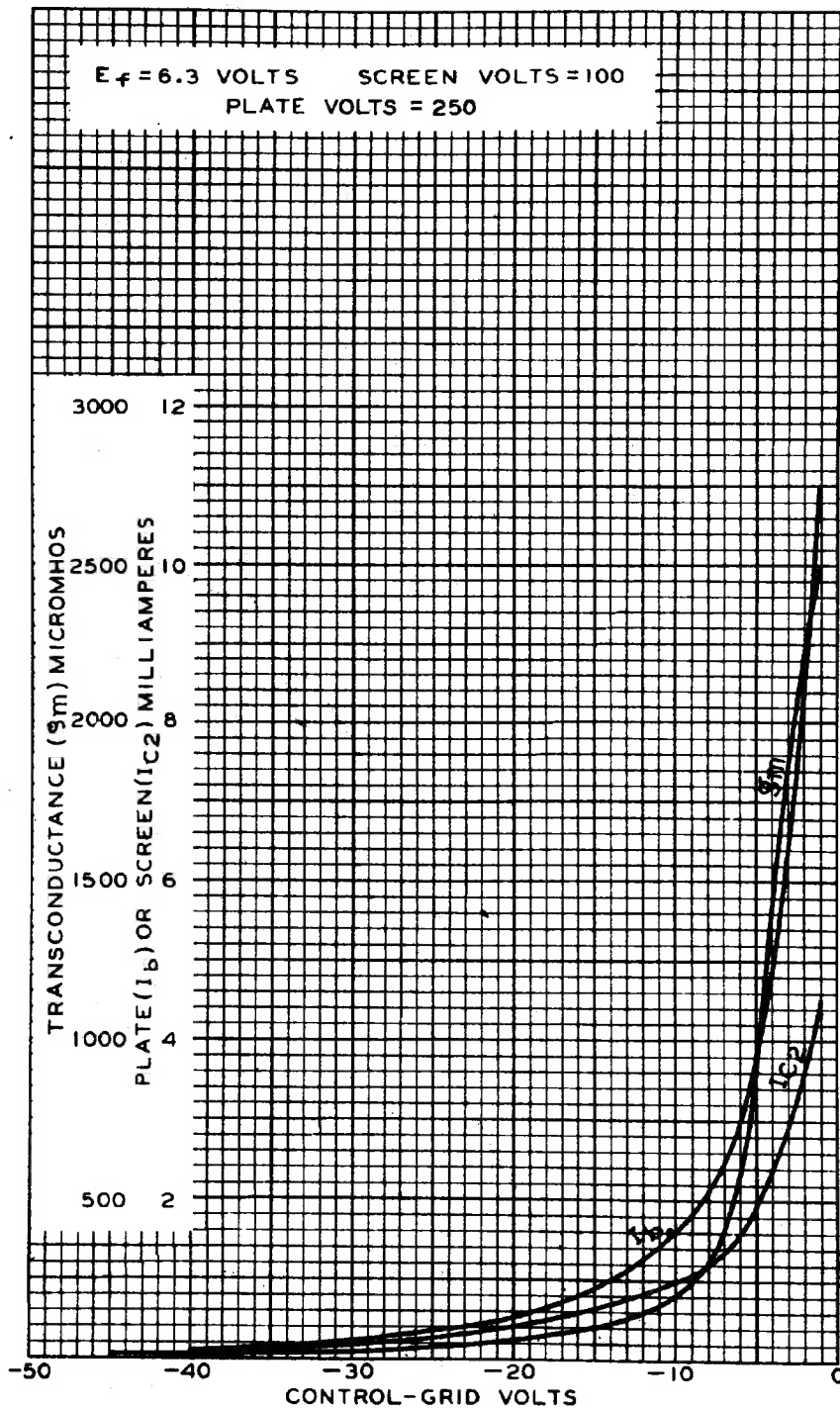
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9003

9003

### AVERAGE CHARACTERISTICS



MAY 29, 1941

RCA RADIODRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

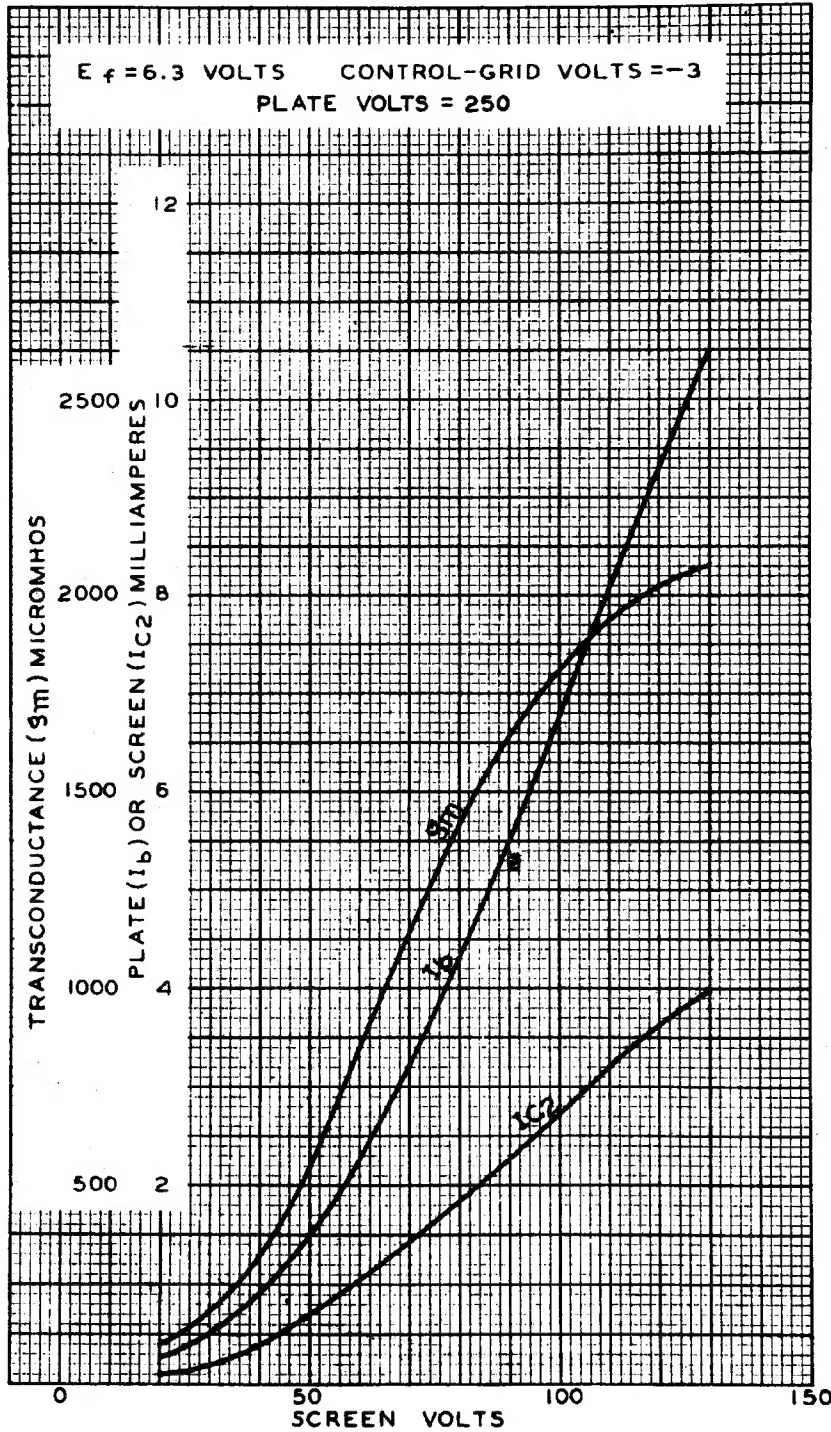
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# AVERAGE CHARACTERISTICS



MAY 29, 1941

RCA RADOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

92C-6290